



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Fallin \*

Serial No. 10/631,202 \*

Art Unit: 1761

Filed: July 31, 2003 \*

Examiner: Ms. Maureen Donovan

For: COATED ANIMAL  
FEED SUPPLEMENT \*

## DECLARATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I, John C. Fallin, declare and state that I am the inventor of the above-identified application and the president of Feed Products North, Inc. Feed Products North, Inc. is a value-added distributor of mineral-based ingredients for animal feed which distributes a wide variety of animal feed ingredients, including potassium-based products, primarily to animal feed companies. We warehouse, market and repackage ingredients from a variety of manufacturers. In addition to reselling various animal feed ingredients, we have also developed a number of value-added feed ingredients. The most recent value-added feed ingredient developed by Feed Products North is fat-coated anhydrous potassium carbonate, which we market as AIM K-Carb

Serial No. 10/631,202

Docket No. 03178-PA

Plus. Anhydrous potassium carbonate ("APC") is both a potassium supplement and helps change the carbon-anion difference in a cow's blood stream. Dairy cows loose potassium through their milk and therefore require potassium supplements to remain healthy and productive. Altering a cow's (DCAD) balance can improve her ability to absorb nutrients and enhance milk production. Historically, farmers used potassium chloride or potassium magnesium sulfate as potassium supplements; however, these supplements have no impact on a cow's DCAD balance. Although anhydrous potassium carbonate offers many benefits as a feed supplement, when mixed with other feed ingredients it can cause the feed to become unusable. Untreated APC picks up moisture from other feed ingredients, creating an exothermic reaction that generates heat. The higher the moisture content of the feed with which it is mixed, the greater the exothermic reaction and in ~~some~~ <sup>5 72</sup> cases the feed can reach 130°. Although some dairy farmers are able to use untreated APC without incident, perhaps because they mix it with low moisture ingredients only or because they use only a small amount, many farmers have significant problems using untreated APC.

AIM K-Carb Plus solves the problems associated with using anhydrous potassium carbonate by coating the potassium carbonate particles with fat so they do not absorb moisture from other feed ingredients. This coating allows AIM K-Carb Plus to be mixed with other feed ingredients, even those with high moisture content such as blood meal, without generating heat.

Customers prefer AIM K-Carb Plus to any other protected potassium carbonate product because the special coating (hydrogenated fat) prevents spilled product from turning to water and

Serial No. 10/631,202

Docket No. 03178-PA

creating a mess on the warehouse floor. Atmospheric moisture will combine with water and cause unprotected product to slime or become completely hydrated. Our invention can easily be swept up and returned to the bag.

After a bag of our invention is opened the material stays free flowing. Without our invention, potassium carbonate will become clumpy and hard. Customers can leave a bag of our material open and exposed without causing product loss.

Material from our invention will store longer in 50 lbs bags. Other products will turn hard after long storage periods. Shelf life is doubled by the invention.

Because the invention uses hydrogenated fat, the hardness of the coating allows more potassium to pass through the first stomach of the cow (Rumen), making more potassium available for absorption in the Abomasums and assimilated into the blood.

AIM K-Carb Plus delivers more potassium (53% K), versus the next leading protected product because of the low inclusion rate of hydrogenated fat. Hardness allows us to use smaller inclusions per ton of potassium carbonate. The smaller the inclusion of coating the more potassium we can deliver to the customer per unit of product.

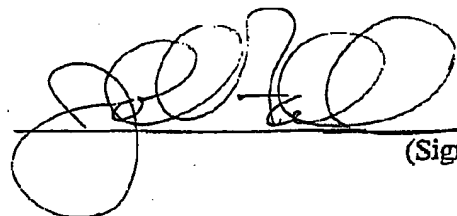
Our sales of potassium carbonate have grown steadily since we first began selling it as a feed supplement several years ago. Based on our sales through November, our 2004 sales of untreated APC will be over 3,000 short tons and our sales of AIM K-Carb Plus will be about 680 tons. Right now, I'd estimate that about 10% of U.S. dairy cattle fed potassium carbonate and I anticipate that number will grow steadily. Over time, I believe our overall sales could reach

Serial No. 10/631,202  
Docket No. 03178-PA

volumes similar to those of sodium bicarbonate, the last similar product introduction in dairy cattle feed which has sales of over 175,000 tons and is still growing. In addition, potassium carbonate usage could extend to other animals, creating even more demand for the product. Further, because of the problems caused by using untreated APC, I believe eventually most farmers will stop using untreated APC and that our sales of AIM K-Carb Plus will grow to be 80% or more of our total APC sales.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

3/8/05  
Date

  
(Signature)

RMG/chb

P:\HOME\CBATES\My Documents\Carolyn\pto\03178\declaration.wpd